

HUBUNGAN RASIO LIMFOSIT MONOSIT DENGAN STADIUM KLINIS PASIEN KARSINOMA NASOFARING

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INTISARI

Latar belakang : Karsinoma nasofaring (KNF) berada di urutan pertama keganasan di kepala leher yang insidensinya terus meningkat. Biomarker inflamasi menjadi petunjuk respon imun terhadap keganasan. Stadium klinis lanjut menggambarkan respon imun yang buruk terhadap sel tumor. Diperlukan biomarker sederhana dan murah seperti rasio limfosit monosit untuk menunjukkan prognosis pasien berdasarkan respon imun terhadap keganasan

Tujuan : untuk mengetahui adanya hubungan antara rasio limfosit monosit dengan stadium klinis pasien karsinoma nasofaring

Metode : Desain penelitian ini menggunakan *case control*. Data sampel penelitian diambil dari rekam medis yaitu pasien KNF yang sudah dilakukan *staging* di poli THTKL RSUP DR Sardjito sejak tahun 2015 hingga 2018

Hasil : Subyek penelitian sebanyak 64 pasien terdiri dari jenis kelamin laki laki 38 pasien (59,4%) dan perempuan 26 pasien (40,6%). Frekuensi umur ≤ 50 tahun sejumlah 33 pasien (51,6%) dan >50 tahun 31 pasien (48,4%) dengan stadium awal dan lanjut masing masing 32 pasien. Tipe histopatologi terbanyak adalah *undifferentiated carcinoma* (WHO tipe 3) sebesar 60 pasien (93,7%) diikuti *non keratinizing carcinoma* (WHO tipe 2) 4 pasien (6,3%). Cut off rasio limfosit monosit (LMR) didapatkan dari kurva ROC yaitu 2,64. Uji hipotesis dengan menggunakan *chi-square test* menunjukkan adanya hubungan antara rasio limfosit monosit dengan stadium klinis pasien KNF dengan nilai $p < 0,001$. Odd ratio sebesar 6,53 (IK 95% 2,19-19,42). Pasien dengan LMR rendah memiliki risiko 6,53 kali untuk terjadinya stadium lanjut KNF dibandingkan pasien dengan LMR tinggi

Kesimpulan : Terdapat hubungan antara rasio limfosit monosit dengan stadium klinis pasien karsinoma nasofaring.

Kata kunci : Karsinoma nasofaring, stadium klinis, rasio limfosit monosit

ASSOCIATION BETWEEN LYMPHOCYTE MONOCYTE RATIO AND CLINICAL STAGING OF NASOPHARYNGEAL CARCINOMA

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ABSTRACT

Background : Nasopharyngeal cancer (NPC) is the most common head and neck malignancy with an ever increasing incidence. Inflammatory biomarkers has been proven to be an indicator of immune response against malignancies. A more advanced clinical stage will elicit a worse immune response against tumor cells. A simple and low cost laboratory examination using biomarkers such as lymphocyte monocyte ratio is needed in order to determine the prognosis of NPC patients based on immune response against malignancies.

Objective : To determine the association between lymphocyte monocyte ratio and the clinical stage of patients with NPC

Method : A case control study was used on data obtained from medical records of NPC patients who had undergone staging in the Otolaryngology Outpatient Department of Sardjito Public Hospital from 2015 to 2018

Results : A total of 64 patients were enrolled in the study, comprising of 38 males (59,4%) and 26 females (40,6%). There were 33 (51,6%) patients aged ≤ 50 years and 31 patients (48,4%) aged > 50 years, with early and advanced clinical stages of 32 patients in each age group. The most common histopathological type is undifferentiated carcinoma (WHO Type 3) (60 patients, 93,7%) followed by non keratinizing carcinoma (WHO Type 2) (4 patients, 6,3%). The cutoff ratio for lymphocyte monocyte ratio was obtained from ROC Curve analysis, which was 2,64. Statistical analysis using chi-square test showed an association between LMR and clinical staging of NPC patients with a p value $< 0,001$, with an Odds Ratio of 6,53 (CI 95%; 2,19 – 19,42). Thus, patients with a lower LMR was shown to have 6,53 times the risk of having a more advanced clinical stage compared to higher LMR.

Conclusion : There was found to be an association between lymphocyte monocyte ratio and clinical staging of nasopharyngeal cancer patients.

Keywords : nasopharyngeal cancer, clinical stage, lymphocyte monocyte ratio